



EX P177

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Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/23/2008

Reviewed on 04/23/2008

1 Identification of substance· **Product details**· **Trade name:** **ACTICIDE MBS 2550**· **Application of the substance / the preparation** Biocide· **Supplier:**

Thor Specialties, Inc.
56 Quarry Road
Trumbull, CT 06611
USA

· **Information department:**

Biocide Department
Phone: +1 203 3656530
Fax: +1 203 3656537
E-Mail: info@thorsp.com

· **Emergency information:**

Emergency phone number (worldwide 24 hrs service): +49 6 21 60-4 33 33
USA: In case of emergency call CHEMTREC 24 Hours at 800/424-9300

2 Composition/Data on components· **Chemical characterization**· **Description:** Microbiocide based on isothiazolinones.· **Dangerous components:**

2634-33-5	1,2-benzisothiazol-3(2H)-one	5%
2682-20-4	2-methyl-2H-isothiazol-3-one	2.5%

3 Hazards identification· **Hazard description:**

Irritant

· **Information pertaining to particular dangers for man and environment:**

Irritating to eyes.

May cause sensitization by skin contact.

· **NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

HEALTH	3	Health = 3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

These are recommended ratings. It is the responsibility of the employer to evaluate products and train employees on the hazards of those products prior to use.

4 First aid measures**· General information:**

In case of emergency call toll free (800) 424-9300. Have the product container or label with you when you call a Poison Control Center or doctor or going for treatment.

· If inhaled:

Move person to fresh air.

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

Call a Poison Control Center or doctor for treatment advice.

· If on skin or clothing:

Call a Poison Control Center or a doctor for treatment advice.

Take off contaminated clothing.

Rinse skin immediately with plenty of water for 15 to 20 minutes.

· If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a Poison Control Center or doctor for treatment advice.

· If swallowed:

Call a Poison Control Center or doctor immediately for treatment advice.

Have person sip a glass of water if able to swallow.

Do not induce vomiting unless told to do so by the Poison Control Center or doctor.

Do not give anything by mouth to an unconscious person.

5 Fire fighting measures

· **Suitable extinguishing agents:** Water spray jet, extinguishing powder, CO₂, foam.

· **For safety reasons unsuitable extinguishing agents:** None

· **Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, toxic incineration products may be released such as:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

· **Protective equipment:**

Wear protective clothing and self-contained respiratory protective device.

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Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures**Person-related safety precautions:**

Wear protective clothing.

Keep unprotected persons away.

When selecting the protective suit it has to be paid attention to a complete and safe protection of skin and mucous membrane. Impermeable protective clothes, protective boots made of neoprene, complete face protection, nitrile-rubber-gloves with long tops.

Measures for environmental protection:

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water.

Prevent from spreading (e. g. by enclosing with a ring of chemical absorbent).

Inform respective authorities in case of seepage into water course or sewage system.

Measures for cleaning/collecting:

Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and collect mechanically.

Suitable binder: multi-purpose absorbent.

Dispose contaminated material as waste according to item 13.

7 Handling and storage**Handling:****Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Handle product in closed systems preferably.

Decant carefully, avoid splashes.

Compliance with the minimum requirements designed to guarantee a better standard of safety and health at work is essential to ensure the safety and health of workers.

Information about protection against explosions and fires:

No special measures required.

Storage:**Requirements to be met by storerooms and receptacles:** Use polyolefine receptacles.**Information about storage in one common storage facility:** none**Further information about storage conditions:**

At temperatures < 1 °C BIT and BIT-sodium salts may crystallize. By heating up to max. 50 °C and stirring, the product may be dissolved again. The quality of the product will not be impaired.

Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

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* 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Avoid contact with the eyes and skin.
Wash hands thoroughly before breaks and at the end of work.
Provide skin protection plan.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Chemical protective gloves according to DIN EN 374 with CE-labelling.

Before use check protective gloves for any damages like holes, cuts or tears.
Do not wear protective gloves longer than necessary.

- **Material of gloves** Nitrile rubber, NBR
- **Penetration time of glove material**
Penetration time depends on different criteria and may be determined by the manufacturer according to the norm DIN EN 374-3.
- **Not suitable are gloves made of the following materials:** Leather gloves
- **Eye protection:**



Safety glasses with side protection.

- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form: Liquid
Color: Yellow
to
amber
Odor: Mild

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: ca. 100°C (ca. 212°F)

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- **Flash point:** Not applicable
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Vapor pressure at 20°C (68°F):** 23 hPa (17 mm Hg) (H₂O)
- **Density at 20°C (68°F):** 1.035-1.055 g/cm³
- **Solubility in / Miscibility with Water:** Fully miscible.
- **pH-value at 20°C (68°F):** 8.0-9.5

*** 10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**
Sensitive to frost.
Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid any negative influences on the active ingredient(s).
- **Minimum shelf life:** 12 months from production date.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:**
None, if storage and handling is done according to specification.

*** 11 Toxicological information**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD50	450 mg/kg (rat)
Dermal	LD50	> 4115 mg/kg (rat)

2682-20-4 2-methyl-2H-isothiazol-3-one

Oral	LD50	285 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
Inhalative	LC50 / 4 h	0.384 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:**
Slightly irritant
After contact with the skin for a certain period of time even small quantities of chemicals classified as irritant may affect skin. Always take first aid measures (see section 4) when skin contact has taken place.
- **on the eye:** Irritating effect.

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- **Sensitization:** Sensitization possible through skin contact.

12 Ecological information

- **Information about elimination (persistence and degradability):**

- **Other information:**

The active ingredient(s) is (are) biodegradable up to the MIC for bacteria.

- **Behavior in environmental systems:**

- **Components:**

The active substance MIT has been shown to be biodegradable in the simulation test "Aerobic Mineralisation in Surface Water - Simulation Biodegradation Test" according to OECD guideline 309.

The active substance BIT proved to be biodegradable in the Aerobic Sewage Treatment Simulation Test (OECD 303 A). Primary degradation is above 90%.

- **Mobility and bioaccumulation potential:**

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

log Pow -0.3; MIT

log Pow 0.7; BIT

- **Ecotoxicological effects:**

- **Acquatic toxicity:**

2634-33-5 1,2-benzisothiazol-3(2H)-one

EC50 / 48 h 3 mg/l (Daphnia)

EC50 / 72 h 0.067 mg/l (Pseudokirchneriella subcapitata)

LC50 / 96 h 2.2 mg/l (rainbow trout)

2682-20-4 2-methyl-2H-isothiazol-3-one

EC50 / 48 h 1.6 mg/l (Daphnia)

EC50 / 72 h 0.157 mg/l (Pseudokirchneriella subcapitata)

LC50 / 96 h 6.0 mg/l (rainbow trout)

- **Behavior in sewage processing plants:**

2634-33-5 1,2-benzisothiazol-3(2H)-one

EC50 / 16 h 0.4 mg/l (Pseudomonas putida)

Noack, BPZ59991

2682-20-4 2-methyl-2H-isothiazol-3-one

EC50 / 16 h 2.3 mg/l (Pseudomonas putida)

Noack, Lab., BPZ61221

- **Remark:**

Depending on concentration, toxic effects on activated sludge organisms are possible.

- **Additional ecological information:**

- **AOX-indication:**

The product does not contain substances, which can influence the AOX of waste water.

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- **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11 EC:**

The product does not contain any heavy metals.

- **General notes:**

The product contains materials that are harmful to the environment.

Avoid transfer into the environment.

13 Disposal considerations

- **Product:**

- **Recommendation:**

Biocide or Pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Biocide/Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your nearest EPA Regulation Office for guidance.

- **Uncleaned packagings:**

- **Recommendation:** In accordance with federal and local regulations.

14 Transport information

- **US DOT Ground Transport Hazard Class:** - Not classified as dangerous for transport

- **Land transport ADR/RID (cross-border):**

- **ADR/RID class:** - Not classified as dangerous for transport

- **Maritime transport IMDG:**

- **IMDG Class:** - Not classified as dangerous for transport

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** - Not classified as dangerous for transport +

- **Transport/Additional information:** Not classified as dangerous for transport.

15 Regulations

- **EPA-Registration number:** pending

- **SARA**

- **Section 302 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **California Proposition 65** None of the ingredients is listed.

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· Canadian Domestic Substances List (DSL/NDSL):

All ingredients are listed.

· Carcinogenicity categories**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard information:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:

Irritant

· Risk phrases:

Irritating to eyes.

May cause sensitization by skin contact.

· Safety phrases:

Avoid contact with skin.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves and eye/face protection.

This material and its container must be disposed of in accordance with federal (RCRA), state and local regulations.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Training hints

US: Use only in accordance with EPA-approved label.

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Further information under the regulations of use can be taken from the Product Data Sheet and label.

- **Department issuing MSDS:** Regulatory Affairs Department
- *** Data compared to the previous version altered.**

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